

ABSTRACT OF THE DISCLOSURE

The present invention provides a manufacturing method of a semiconductor device, which is able to improve on-current and mobility of a polycrystal TFT without disturbing a high integration level, and also provide a semiconductor device obtained in accordance with the manufacturing method. The manufacturing method comprises steps of adding a catalytic element to a semiconductor film and heating the semiconductor film to form a more crystallized first region; forming a less crystallized second region than the first region; irradiating first laser light to the first region to form a more crystallized third region than the first region; irradiating second laser light to the second region to form a more crystallized fourth region than the second region; and patterning the third region to form a first island-shaped region and the fourth region to form a second island-shaped region, wherein the first laser light has the same energy density from the second laser light, and a scan speed of the first laser light is faster than that of the second laser light.